

What is claimed is:

1. A method of reducing the risk of transmission of a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen with a  $\beta$ -cyclodextrin.
- 5 2. The method of claim 1, wherein the pathogen is an enveloped virus.
3. The method of claim 2, wherein the enveloped virus is an immunodeficiency virus, a T lymphotropic virus, a herpesvirus, a measles virus, or  
10 an influenza virus.
4. The method of claim 2, wherein the enveloped is a human immunodeficiency virus.
- 15 5. The method of claim 2, wherein the enveloped virus is a *Herpes simplex* virus.
6. The method of claim 1, wherein the pathogen is a microbial pathogen.
- 20 7. The method of claim 6, wherein the microbial pathogen is a bacterium, a yeast, or a protozoan.
8. The method of claim 6, wherein the microbial pathogen is a *Chlamydia* spp., a *Trichomona* spp., or a *Candida* spp.
- 25 9. A method of reducing the risk of a subject becoming infected with a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen in the subject with a pharmaceutical composition comprising a  $\beta$ -cyclodextrin, thereby reducing the risk of the subject  
30 becoming infected with the sexually transmitted pathogen.
10. The method of claim 9, wherein the subject is a human.

11. The method of claim 9, wherein the cells susceptible to infection by the pathogen are epithelial cells.

5           12. The method of claim 11, wherein the epithelial cells are vaginal epithelial cells or rectal epithelial cells.

13. The method of claim 8, wherein the pharmaceutical composition is formulated in a solution, a gel, a foam, an ointment, a cream, a paste, or a spray.  
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14. The method of claim 9, wherein the pharmaceutical composition is formulated in a suppository, a film, a vaginal disk, or a condom.

15           15. The method of claim 9, wherein the  $\beta$ -cyclodextrin is 2-hydroxypropyl- $\beta$ -cyclodextrin.

16. The method of claim 9, wherein the pharmaceutical composition further comprises a contraceptive, an antimicrobial agent, an antiviral agent, a lubricant, or a combination thereof.  
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17. The method of claim 16, wherein the contraceptive is a spermicide.

18. The method of claim 16, wherein the antimicrobial agent is an antibiotic.

25           19. The method of claim 9, wherein the sexually transmitted pathogen is an enveloped virus or a microbial pathogen.

20. The method of claim 19, wherein the enveloped virus is an immunodeficiency virus, a T lymphotropic virus, a herpesvirus, a measles virus, or  
30   an influenza virus.

21. The method of claim 10, wherein the sexually transmitted pathogen is a human immunodeficiency virus (HIV) or a *Herpes simplex* virus.

5 22. The method of claim 19, wherein the microbial pathogen is a bacterium, a yeast, or a protozoan.

23. A method of reducing the risk of transmission of a sexually transmitted disease by a subject infected with a sexually transmitted pathogen, the method comprising contacting the pathogen or cells susceptible to infection by the pathogen  
10 with a pharmaceutical composition comprising a  $\beta$ -cyclodextrin, thereby reducing the risk of transmission of the sexually transmitted disease by the subject.

24. The method of claim 23, wherein the subject is a vertebrate.

15 25. The method of claim 23, wherein the cells susceptible to infection comprise a secretion produced by the subject.

26. The method of claim 25, wherein the secretion is semen or a vaginal secretion.  
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27. The method of claim 23, wherein the cells susceptible to infection are epithelial cells.

28. The method of claim 23, wherein the pharmaceutical composition is  
25 formulated in a solution, a gel, a foam, an ointment, a cream, a paste, or a spray.

29. The method of claim 23, wherein the pharmaceutical composition is formulated in a suppository, a bioadhesive polymer, a vaginal disk, or a condom.

30 30. The method of claim 23, wherein the  $\beta$ -cyclodextrin is 2-hydroxypropyl- $\beta$ -cyclodextrin.

31. The method of claim 23, wherein the pharmaceutical composition further comprises an antimicrobial agent, an antiviral agent, or a combination thereof.

32. The method of claim 31, wherein the antimicrobial agent is an antibiotic.

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33. The method of claim 23, wherein the sexually transmitted pathogen is an enveloped virus or a microbial pathogen.

34. The method of claim 33, wherein the enveloped virus is an immunodeficiency virus, a T lymphotropic virus, a herpesvirus, a measles virus, or an influenza virus.

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35. The method of claim 24, wherein the sexually transmitted pathogen is a human immunodeficiency virus (HIV) or a *Herpes simplex* virus.

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36. The method of claim 33, wherein the microbial pathogen is a bacterium, a yeast, a mycoplasma, or a protozoan.

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37. A pharmaceutical composition, comprising a  $\beta$ -cyclodextrin and an agent selected from a contraceptive, an agent for treating a sexually transmitted disease, a lubricant, and a combination thereof.

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38. The pharmaceutical composition of claim 37, wherein the contraceptive is a spermicide.

39. The pharmaceutical composition of claim 27, wherein the agent for treating a sexually transmitted disease is an antimicrobial agent or an antiviral agent.

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40. A composition for reducing the risk of transmission of a sexually transmitted disease, the composition comprising a solid substrate and a  $\beta$ -cyclodextrin.

41. The composition of claim 40, wherein said the solid substrate comprises an organic polymer.

42. The composition of claim 41, which is a condom, a diaphragm, a vaginal  
5 disk, or a vaginal film.

43. The composition of claim 41, which is a glove.

44. The composition of claim 40, wherein the solid substrate is an absorptive  
10 substrate.

45. The composition of claim 44, which is a sponge or a tampon.

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